Securing Rockport's Water Supply:

An Assessment of Land Protection Needs and Opportunities

Prepared for the Rockport Watershed Protection Committee 2008

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I. Background for the Assessment

The Town of Rockport, like many towns in the Commonwealth, is dependent on surface and ground water supplies within its own boundaries for its domestic water supply. Rockport does not have access to the water resources of the Metropolitan Water Resources Authority (MWRA) or withdrawals from large watersheds outside town boundaries. Almost all of Rockport's water comes from soils and surface waters with watersheds located within the Town boundaries, except for the Upper Mill Brook watershed that is partially located in Gloucester. In fact, some of the watershed areas within Rockport contribute to the water supply in Gloucester and thus flow out of Rockport. Rockport may be somewhat unique in this level of self-reliance.

In this context, Rockport is both directly responsible for protecting the land containing its own water supply, as well as uniquely able to because this land lies mostly within its own political boundaries. Protection of water supply watershed lands from excessive development, and development that could bring contamination with it, is essential to reasonable and legally compliant management of municipal water supply lands. It is this unique responsibility, opportunity, and ability to protect the Town's own water supply that generated this needs assessment and its accompanying analysis and recommendations.

The Town of Rockport shares an island with a portion of the City of Gloucester. The publicly controlled land in the water supply watershed areas in Rockport was acquired so long ago, that many in Town Hall do not remember the method by which these lands were acquired. Each community has made some efforts in more recent years to expand the land area that protects its water supply as open land, free of encroaching development. This has been accomplished in some part through ownership of the critical land encompassing water supply watershed. In many cases, some of these areas are remote and lack any road access. Other areas are full of ledge and lack sewers. As a result, they have been extremely difficult to develop. Yet other land areas on the edge of the developed areas, are prime for residential development. In Rockport much of the undeveloped land is within its Watershed Protection Overlay Zoning District covering all the water supply watersheds. Figure 1 identifies the locations of all of the watersheds in Rockport covered by the Watershed Protection Overlay Zoning District.

The land assessment included in this study must by necessity look broadly at all parcels within the water supply watersheds. Activities on all of the land within the watersheds can impact the water quality on water withdrawn for municipal water supply. In many cases the assumption is made, as it generally is in this study, that activities on the lands closest to the wells or surface water supplies can have the greatest impact. The relatively small size of these watersheds and the prevalence of bedrock underlying most of the town, and the unknown impacts of the movement of water through fractures in the bedrock, make it difficult to know which parcels may in fact most impact water quality. As a result, this study effort, while focusing most interest on the parcels proximate to the wells and surface water supplies, also considers that uses of all parcels within each water supply watershed needs to be considered and protection of even relatively distant parcels worthy of consideration. One common feature of Rockport's watersheds is that they are relatively small in size, none much larger than a square mile in size. Land use on any parcels either proximal or distant to the water withdrawal points have the potential to negatively impact water quality.

II. Purpose and Goals of the Current Assessment

This assessment first identifies all of the parcels in each of four watershed areas, and then goes on to identify on Figure 2 those parcels that, by criteria developed for this study, may impact most the quantity and quality of the water available from the watershed, are most in danger of development, or are valuable in a broader sense to protect for the water resource protection value of open space. The watersheds included in this study include Cape Pond, Carlson's Quarry/Flatledge Quarry, Mill Brook, and Saw Mill Brook. This assessment did not include Stoney, East Brook, South Brook or Squam Brook watersheds because they are not currently permitted or emergency water supplies.

One goal of this assessment, then, is to identify in the short run key parcels that may need to be protected and to categorize them as high or lower priority to protect. A second goal is to develop a baseline of information of all parcels meeting certain criteria within the water supply watersheds in need of protection so that, when opportunities may arise in the future, an evaluation of each parcel exists, with basic data that can be quickly referenced. The assessment then goes on to suggest programs and procedures by which key land within these watersheds can be protected by the Town.

Rockport has made efforts to protect land around some of its primary water sources (Cape Pond and Carlsons Quarry), but other watersheds whose water sources may be critical in drier years or those that can accommodate additional future development of the water resource remain quite open to development and the potential resulting impacts on water quality. The Open Space and Recreation Plan (OSRP 1997), Town of Rockport, 1997, began to assess the level of land protection and address the need for more land protection. As of the preparation of the OSRP 1997, the Town owned overall about 50% of the Carlson, Cape Pond, and Mill Brook watersheds, and about 30% of the Saw Mill Brook Watershed. It should be pointed out that the City of Gloucester owns approximately 95% of its watershed land. With little additional acquisition work since that time, these percentages still describe an accurate picture of the land protected. Several other parcels are also controlled by Essex County Greenbelt Association. While these are informative numbers, there are many critical parcels in each that remain unprotected.

The OSRP 1997 targeted the protection of open lands within water supply watersheds. Particularly noted were lands within the Zone A (generally the land area 400' from the surface water source and 200' from tributary streams) of the Saw Mill Brook, South Brook, and East Brook watersheds, and the area around Johnson's Quarry. The OSRP 1997 also identified the need to "map and prioritize specific areas for preservation; conduct community education programs regarding open space/watershed preservation techniques....develop funding mechanisms for the acquisition of lands...work to develop management plans for town-owned open space parcels."

As residential uses increasingly accumulate hazardous substances, and as increasing development augments the possibility of contamination through surface run-off as well as reduced recharge into water supply aquifers, the need to limit development within the watersheds increases. The 2002 Source Water Assessment and Protection (SWAP) Report completed by the Massachusetts Department of Environmental Protection, recommended that the Town "work with planners to control new residential developments in the water supply protection areas" and "keep any new prohibited activities out of the Zone A." This Plan reviews the conditions within the water supply

system and within each watershed, and provides specific suggestions regarding protection options for the critical watershed lands.

For the purposes of this study effort, the **assumptions** are made that the parcels targeted for protection will be protected using methods that can achieve the following Town goals:

- Land will be protected permanently
- Land will be managed primarily for water supply protection, although other uses such as passive recreation may also take place on the site
- Ownership in fee can be with the Town, with a land trust organization, or remain with the owner as long as the first two assumptions are achieved
- Fee ownership or a conservation restriction, if one is to be used, will be held by the Town Department of Public Works for lands in the Zones A or I, or by the Conservation Commission or one of the identified land trust organizations for remaining lands

III. Water System Resources and Delivery

The Rockport water supply system has approximately 3,400 service connections, serving 96% of Rockport's resident population. In 2004, the average daily demand in the system was 0.606 MGD (million gallons per day), with a maximum consumption of 1.165 MGD on July 4, of that year. The almost doubling of daily demand from average to maximum is typical for the water system and its users. This is in part due to seasonal differences, and in part due to the large transient population that comes to, or lives in, Rockport for the summer. The summer population has been estimated at around 18,000 – more than double the number of year round residents.

Rockport's water system is registered under the Water Management Act to provide a maximum average daily withdrawal of 0.72 MGD from all sources over the course of the year. Rockport has few options for increasing its current supply of water. Rockport's location on an island, and the extensive ledge that underlies the island, severely limit the options for increasing supply. The key methods that have been recommended to the Town to pursue include dedicated protection of the water that can be available from existing and potential future supply sources already identified, as well as careful management of structures and practices in use to manage existing supply options.

The current water system consists of three principal sources of surface water in 2 watersheds and one shallow wellfield for routine water supply, with surface water supplies in two other watersheds available on an emergency basis to complement the ongoing sources of supply.

Table 1: Existing Water Supply Watersheds in Rockport

Water Source	Status	Permitted Withdrawal		
Cape Pond Reservoir	Registered	.329MGD		
Carlson's Quarry Reservoir	Registered	(.92MGD Carlsons)		
Flat Ledge Quarry	Permitted as additional source - 2002			
Mill Brook Wellfield	Registered	.20 MGD		
Saw Mill Brook	Emergency use only			
Steel Derrick Quarry Reservoir	Emergency use only			

Source: Water Supply Operations Plan for Rockport, Massachusetts. SEA Consultants. 2005

The following schematic, Figure 3, shows the water sources for the Town of Rockport and was in most part prepared as part of the Water Supply Operations Plan, prepared for the Town by SEA Consultants in 2006. Rapid Sand Filtration and Dissolved Air Flotation are the two water treatment processes used by the Town. Carlson's Quarry, as a collecting point for water from Flatledge Quarry and Steel Derrick Quarry, is of central importance in protecting its immediate surroundings for quality of water supply. Cape Pond, also a collection point, in some cases for the Mill Brook/Carlson complex as well as for the Saw Mill Brook supplies is also central for protecting water quality. After each of the treatment processes (Dissolved Air Flotation Water Treatment and Rapid Sand Filtration Water Treatment) water is released into the water supply and goes to individual end use customers in Rockport.

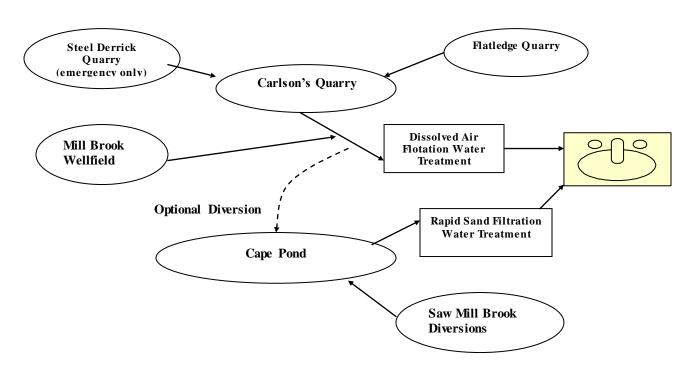


Figure 3: Schematic of Water Supply and Treatment System

Source: Water Supply Operations Plan for Rockport, Massachusetts. SEA Consultants Inc.. March 2006.

Protection of the land surrounding current water sources is undertaken by Town staff. Members of the Watershed Protection Committee also monitor activities and report potential and issues to the Department of Public Works. According to Chris Martin, the Director of the Water Department, staff of the Rockport Water Department undertake weekly patrols in the area of the wells and around the water supply reservoirs to identify any issues that could impact the quality of the water supply. Intrusions of temporary shelters and abandoned vehicles have been occasionally located and addressed. These reviews have also identified potential problems from access issues on parcels within watersheds where waters are sometimes diverted to Cape Pond. Such issues will also be considered in implementation of this report in identifying parcels most in need to limit harmful activities in the water supply watersheds.

IV. Approach and Methodology

The Watershed Protection Committee developed a methodology for this study - to identify parcels within the watersheds and to collect basic information on them, to generate potential contact with landowners to review the identified parcels, and to identify methods that could be utilized by the Town to protect the key parcels. The parcels identified in the course of this effort were selected by the Rockport Watershed Protection Committee based on key physical attributes of the parcel. The protection of any given parcel will be further reviewed by the Board of Selectmen, Department of Public Works, Conservation Commission, and Town Meeting before either the parcel or an interest in the parcel can or would be acquired. Public scrutiny will be brought into the picture at that time. As part of this effort, the Watershed Protection Committee is planning to hold an open meeting for land owners to inform them of the Town's potential long term interest in ownership of an interest in their parcel in order to protect the Town's water supply.

Identification of Priority Watershed Parcels for Protection

Figure 1 includes the watersheds in Rockport that currently contribute to the Town's water supply on a regular or emergency basis. The Watershed Protection Committee elected to identify and catalogue information on parcels only located fully or partially within the watersheds that are or recently have been used to supply water to Rockport customers either on a routine or emergency basis. According to the Town's Water Supply Operations Plan, the water sources most often used are Cape Pond and Carlson's Quarry. The next most frequently used are the Mill Brook Wellfield and Flat Ledge Quarry. Steel Derrick and diversions from Saw Mill Brook to Cape Pond are used in emergency situations only.

Other watersheds have been identified and delineated for the purposes of the Rockport Watershed Protection Overlay District. These additional watersheds are named Stoney Brook, Squam Road Brook, East Brook, and South Brook. These watersheds were not included in this study as they do not currently contribute to the domestic water supply in Town. If in the future the Town moves in the direction of developing facilities in these watersheds, parcels within them can be added to the existing analytic framework.

Identification of Parcels for Protection

Parcels were identified and reviewed for priority protection in each of the selected water supply watersheds that for the following criteria:

- 1.) Size
- 2.) Current use and development potential
- 3.) Proximity to municipal sewer and water
- 4.) Proximity to Zone 1 (land within 250 or 400 foot radius of wells) and Zone A (land within 200 or 400' of bank of a tributary or surface water source) of any source water

As an example, the assessment effort did not consider parcels for protection that had clear frontage and access, that was an acre or less and that could be a building lot. These lots will likely be costly and are not considered a priority for the Town's efforts at this time. For parcels up to three acres,

the assessment considered parcels as appropriate for protection if they were either isolated and unlikely to be built on, or may or may not be isolated but were less likely to be built on (less costly). All parcels of interest were identified on parcels maps in each of the watersheds and a baseline list was assembled for each watershed.

After the initial identification of parcels of interest for inclusion in the study, parcels were further identified for their priority status for protection. These categories are as follows:

Requiring Immediate Action: Several parcels were identified as requiring immediate action based on key characteristics including: within the Zone I of a potential wellfield or an existing wellfield, and immediately next to a surface water supply.

High Priority: Designated based on proximity to water supply, size, unsuitability for development, and other factors

Lower Priority: Designated based on distance from water supply, smaller size, likelihood of development pressures, and other factors

Unidentified Parcels: Some parcels that are currently mapped in the Assessors' records have no data associated with them – that is no owner indicated, no map and lot number, no size indication, etc. At this time, it is not possible to categorize them as high or low priority. In fact, they may be part of an abutting lot, or the result of poor or no survey work identifying them and surrounding lots, or some other vagary of the development of maps and data bases. Most of these parcels are in the Carlson's Quarry watershed.

For this report, Figure 2 provides the summary information on all the watersheds. Parcels identified in gold are High Priority for protection and those in yellow are Lower Priority, but still targeted for protection. Parcels shown in pink are the Unidentified Parcels. The three shades of green indicate land that already has some level of protection of water resources. The lightest green is land owned by the City of Gloucester and is generally within the area delineated as the watershed serving Babson Reservoir in Gloucester, but it also includes some land within the watershed of the Mill Brook wellfield. The medium green indicates land owned by the Town of Rockport that is located partially or completely within the water supply watersheds. The darkest green indicates land owned by the Essex County Greenbelt Association that is held for the purposes of land protection and passive recreation.

Certainly the availability of a donation of land or an easement on any parcels within these watersheds would be valuable and welcomed by the Town.

Development of Assessment Instrument

An assessment data sheet was prepared to be completed for each of the designated parcels. The data sheet form is attached to this assessment as Appendix A.

The data sheets were completed by members of the Watershed Protection Committee using primary data on each parcel available in Town Hall records (Assessors' data, Board of Health information),

information that could be gleaned from the maps (location relative to Zones I and A, distance from road access, etc), and information from state and federal data. In some cases, information was gleaned from direct observation of the site, as noted below.

Direct Observation of Parcels

The Watershed Protection Committee initially identified on-site visits to each parcel as an important part of the study effort. Request letters were sent to property owners, but they received sporadic replies. After this initial outreach to owners, the Committee determined that formal site visits with property owners should not be a key component of this stage of the effort. It was identified that site visits may proceed at a later point with interested owners on an individual basis.

V. Watershed Summaries

Some general issues should be identified before the description of the status of each watershed is presented. Figure 2 contains much of the information that was produced as part of this study. It indicates the priority parcels for protection, parcels for which land information is missing, parcels already in public or other protected ownership, and key watershed features. It also indicates the area that is currently owned by the City of Gloucester to protect their water supply. In the process of reviewing each watershed, assumptions were made regarding the potential for development. The development of new technologies for wastewater treatment on site will continue to change and may affect the status of many of these parcels in the future.

Carlson's Quarry/Flat Ledge Quarry/Steel Derrick Quarry

This is the northernmost active watershed complex in Rockport. Steel Derrick Quarry and Flatledge Quarry each flows or is directly pumped into Carlson's Quarry which is used for water supply. (See Figure 3) Figure 2 indicates the location of the watersheds and shows the Zones A of the quarries.

Carlson's Quarry has been used for water supply since 1953. The Quarry is 90-110 feet deep, and the top 90 feet is technically available for use. When the water level drops to 70 feet, the aesthetic quality of the water decreases. The actual volume between the water height of 90 feet and 70 feet is 43 million gallons (MG).

Flat Ledge Quarry was permitted by the Department of Environmental Protection in July of 2002. The useable capacity of the quarry is at water levels between 100 feet deep at full capacity and 30 feet deep, for a total of 59 MG. Water is pumped up from Flat Ledge Quarry to Carlson's. The 2002 Water Management Act permit limits the maximum daily pumping from Flat Ledge to Carlsons to .29 million gallons per day (MGD). Flat Ledge is used to supplement the water level in Carlson's Quarry.

Steel Derrick Quarry sits within the Carlson Quarry watershed, and is designated an emergency water supply for Rockport. There is a 12" pipe that allows flow from Steel Derrick Quarry into Carlson's Quarry by gravity. This source is only used during emergencies, the last of which occurred in October of 1997. Each spring, however, overflow from Steel Derrick runs overland into Carlson Quarry.

Figure 2 provides a graphic representation of the configuration and size of parcels within the watersheds Appendices B through E contain a complete listing of all parcels identified in the Assessors' data base within each of the selected watersheds that meet the criteria of this effort for protection and the characteristics of each derived from secondary data.

Flat Ledge Quarry watershed contains almost the same amount of development as Carlson, although it is a much smaller quarry -9 parcels with residential development vs. 14 for Carlson. Quarry. It is comprised primarily of a number of larger parcels with limited road access.

Only Johnson Way, Rowe Avenue, and Squam Road penetrate the Carlson Quarry watershed. Figure 2 shows Assessors' parcels by indicating a critical mix of land that is already publicly owned

or protected immediately around the quarries, as well as significant number of parcels that don't appear in the Assessors' records and where the use is unknown. Figure 2 helps the reader to comprehend the configuration of parcels and can clarify any subsequent discussions of protection of specific parcels. Finally, Figure 2 shows in gold (High Priority) and yellow (Lower Priority) parcels by their priority for protection the lots identified as being of interest for protection as a result of this study. Two parcels currently being discussed by the Department of Public Works for protection are located within this watershed, abutting Flatledge Quarry.

Mill Brook Wellfield

The Mill Brook watershed is largely north of Rt. 127, but straddles that roadway as well as the Gloucester border. Flows in this watershed move through groundwater and Mill Brook, with Mill Brook passing through Loop Pond, and groundwater movement intersecting the relatively shallow water supply wells clustered downstream of Loop Pond just west of Poole's Lane. (See Figure 2)

The Mill Brook wellfield was originally composed of 23 2.5" tubular wells and a vacuum pump system. The Mill Brook wells are permitted to supply up to .2MGD of the system's maximum average daily withdrawal of .72 MGD, or more than 25% of the water demand for the Town. The wells, originally developed in the 1920's, were replaced in 2000-01 with three 8 inch gravel packed wells developed to a relatively shallow depth of only 21-23 feet.

Periods of low groundwater levels require the deactivation of these wells, which occurs primarily in the late summer and early fall. These wells are taken on and off line, with the most prolonged usage of the wells occurring for 11 months in 2002. The wells were used during most of 2003, but in 2004, 2005, and 2006 the wells were used principally from August through December.

The Mill Brook wellfield is operated as a supplement to the primary surface water supplies existing in other watersheds. Water is pumped from the wells either to supplement Cape Pond or directly to the water treatment plant.

Figure 2 indicates that Mill Brook watershed lies in the west center of Rockport and is one of the larger watersheds in total area. This also provides a graphic representation of the configuration and size of parcels within the watersheds. Appendix B, Parcel Assessment Summary Information, contains further detailed information on this watershed. Appendix B also contains a complete listing of all parcels identified on the Assessors' data base within the watershed that meet the criteria of this effort for protection and the characteristics of each derived from secondary data.

Mill Brook watershed contains an intensively developed area on the southeast edge, including a multi-family development and single-family homes on small lots. There was also a layout developed with a number of paper streets and lots, many of which are now owned by the Town through the tax title process. Others of these small parcels are still privately owned, with no current likelihood of development. The MBTA tracks cut the developed portion of the watershed off from the undeveloped. Only two homes and one business are located in the area north of the MBTA tracks. Most of this area is either publicly owned or currently has significant limitations on development.

Saw Mill Brook

Water resources in this watershed, located in southeastern Rockport, are used only in emergency conditions. Temporary diversions from Saw Mill Brook are directly made into Cape Pond. For the 17 years from 1990 to 2007, this diversion was utilized only twice during the periods of April and May of 2000 and April and May of 2002. It has not been used at all since 2002. In 2002, a combined 7,926,600 gallons were pumped. The capacity of this watershed is estimated at a pump rate of 200-300 GPM (gallons per minute).

Saw Mill Brook is also one of the largest watersheds in Rockport. Figure 2 indicates that Saw Mill Brook watershed lies south east of Rt. 127 in the so-called south woods. This also provides a graphic representation of the configuration and size of parcels within the watersheds. Appendix B, Parcel Assessment Summary Information, contains a complete listing of all parcels in the Assessors' data base identified within the watershed that meet the criteria of this effort for protection and the characteristics of each derived from secondary data.

Saw Mill Brook watershed contains a somewhat intensively developed area on the northern edge, including primarily single-family homes on medium-sized lots. This area also contains the school complex and a large area of land owned by the Rockport Country Club, some of which is developed as golf course. Most of the rest of this area is comprised of large, privately owned parcels that lack any road access or reasonable proximity to road access

Saw Mill Brook watershed contains several large parcels that are privately owned and could be developed. Two of these parcels have had subdivision applications submitted on them, although one is in litigation and the other, dependent on access through the proposed subdivision in litigation, is awaiting the outcome of that process. Most development interest and activity is centered on parcels near the end of the public and private ways that enter this watershed from the north side – Jerden's Lane, Prospect Street, and Summer Street Court.

The Town recently acquired the parcel called the Rowe Parcel, Map 23, Lot 19. It was acquired for watershed protection and other open space purposes. The cost to the Town was approximately \$150,000. More information will be provided on this acquisition later in this report.

Cape Pond

Cape Pond has a total useable storage capacity of about 110 MG. Cape Pond was first utilized as the Town's water supply in 1895, making it the Town's oldest source of public water. Ten years of withdrawal records indicated that the average withdrawal rate of .38 MGD over the entire year, with a higher July average of .53 MGD. This source is used on a continuous basis throughout the year. During the winter months of 2005 and 2006, the amount being stored seldom went below the 110MG.

Water from the Steel Derrick, Carlson's and Flatledge Quarries, Saw Mill Brook and from Mill Brook, can be diverted into Cape Pond for storage, or can go directly into on of two Water Treatment Plants near Cape Pond. (See Figure 3)

Since Cape Pond is the most steadily used and largest source of water supply in Town, and because it has the smallest watershed, land in the Cape Pond watershed may be the most important to protect. Fortunately, most of the land within the Cape Pond watershed is still open and already in public ownership. This project has identified 5 parcels not in public ownership within the Cape Pond watershed that meet the criteria for protection.

As noted earlier, two potential wells lying just southeast of Cape Pond are being tested for development as additional water sources. The location of these potential wells are indicated on Figure 2 - one within the Cape Pond watershed and one within the South Brook watershed. Some of the land within the estimated Zone I of these wells are not controlled by the Town. These areas will have to be under municipal ownership in order to proceed with the permitting of these wells.

Potential Future Expansion of Water Supply Sources

Rockport is pursuing several options for increasing the reliability of its water supply into the future. Water conservation has long been on the Town's agenda through leak detection, outdoor watering bans and distribution and sales of rain barrels and low water usage fixtures.

The storage capacity of Flat Ledge Quarry has been studied to determine how it could be increased based on the potential construction of a dam. The study has reviewed potential impact and productivity and some research has been undertaken. In any case, the watershed of this potentially expanded water supply has been included in this study since it is frequently used as a water source.

The potential for two additional wells located just southeast of Cape Pond is currently under consideration for a permanent emergency water source. These two wells, located on Figure 2, were identified as being located in one of eight "favorable zones" within the Town of Rockport that were identified as potential future high yielding fractured bedrock well water supply areas. Four of these "favorable zones" are currently being reviewed by Dewberry-Goodkind Inc. for their ability to produce an adequate volume and quality of water. Currently, these well sites are the ones being actively studied. A test well has been dug and two of the four 10-day pump tests have been completed. The Town and its engineers are evaluating the quantity and quality of the water pumped from the wells.

Examples of high priority parcels for protection include several located immediately abutting Flatledge Quarry, while others contain a portion of the Zone I of the proposed new wells near Cape Pond, and other privately-owned parcels are located within the Zone I of the Millbrook wellfield..

VI. Results of Analysis

This analysis, including parcel identification and mapping work, identified the following key information that will instruct how the Town might proceed on protecting watershed land.

Table 2: Summary Land Protection Information for Rockport Water Supply Watershed

	Cape	Carlsons	Mill Brook	Saw Mill	Total
	Pond	Quarry*		Brook	
Number of Parcels					
Parcels at least partially within the watershed	66	45	210	163	484
Parcels at least partially within the Zone A or I	23	7	18	2	50
Parcels within the watershed: High priority	3	19	9	40	71
Parcels within the watershed: Lower priority	0	3	26	7	36
Parcels within the watershed: Unidentified	0	6	3	0	9
Parcels within the watershed: Protected or Town-owned	33	4	32	13	82
Number of Acres					
Acres within the watershed	215.9	195.9	448.5	378.6	1238.9
Acres protected or Town owned within the watershed	186.4	78.1	276	69.8	610.3
Acres protected or Town owned within Zone A or I in the watershed	157.7	33	6.1	.86	197.7
Acres identified as High Priority for protection within the watershed	11.4	70.1	29.4	264.7	375.6
Acres identified as Lower Priority for protection in the watershed	0	1.9	10.4	9.3	21.6

^{*} Includes Steel Derrick and Flat Ledge Quarry Watersheds Notes:

- 1. Gloucester parcel data not included in figures with number of parcels
- 2. All parcel areas are only portion of parcel within the watershed
- 3. Town owned land not necessarily held in restricted use for watershed protection
- 4. Sawmill Brook currently does not have any state designated Zone A.

Overall, Table 2 summarizes the challenges that face the Town in fully protecting the current water supply watersheds. While long run efforts may focus on complete protection, this study is focusing on the shorter run efforts that could be implemented in the timeframe of the next ten years – to target parcels that will have the greatest impact in protecting water quality and quantity while at the

same time be affordable to the Town to protect. As a result, parcels can be considered relative to their eligibility for funding that may be available from the Commonwealth or other external funding sources.

Table 2 indicates that there are 71 parcels identified as High Priority for protection, while 36 are of Lower Priority, but still important to protect should they become available. To the Town's benefit, there are already 82 parcels within the water supply watersheds that are already in Town control. It is worth noting however, that some of these parcels may not carry legal restrictions on their use to fully protect them for their value to protect water quality and quantity.

The second portion of Table 2 summarizes the acreage in these parcels in need of protection. Especially noteworthy are the 197.7 acres in the Zones A or I that are in Town control. Mill Brook watershed is the largest, with the largest number of protected acres also. None of the potential Zone A of Sawmill Brook is protected, leaving this as one of the biggest challenges, especially if there is an increased use of this source of water. On the other hand, there are 375.6 acres in the Town's watersheds that are in private ownership and considered High Priority for protection, with most in watersheds like Carlson's Quarry that function as a regular source of water.

The nine parcels named as Unidentified Parcels (No Assessors' data) on Figure 2 need to be treated differently from the other parcels. The sections below on Partners in Protection and Methods of Protection apply principally to High and Low Priority parcels. The section below titled "Protecting Unidentified Parcels" suggest a procedure for starting down a road to identify and access ownership of these parcels.

In reviewing the above information on land identified within the watersheds, and considering the practical realities of town water usage and state regulations and requirements, the following list of the types of land most in need of protection is offered here.

Watershed Lands in Priority Need of Protection

- 1. Lands in the Cape Pond Watershed, particularly in the vicinity of the proposed new wells, may be the top priority for protection
- 2. Lands in the Zone A's or I's of the surface water supplies that are regularly used are also top priority this particularly includes Cape Pond, Carlson's Quarry including Flat Ledge Quarry, and Mill Brook
- 3. Larger parcels of land in any of the active watersheds are also top priority
- 4. Parcels identified that are in the headwaters of Saw Mill Brook that are most at risk of development

These priority criteria are in addition to but also reflected in the color-coding on Figure 2.

Securing Rockport's Water Supply

VII. Strategies for Watershed/Parcel Protection

The Town has a number of strategies it can pursue in order to protect important parcels of land within its water supply watersheds. These land protection strategies can be pursued individually or in tandem to produce the desired results. Rockport has limited capacity on its own to undertake land protection efforts, as outlined below in the section "Development and Enhancement of Local Capacity for Land Protection." The Town's main allies in efforts to protect land can be found within the regional non-profit organizations established to undertake land protection, and public entities with the same mission. The relative contributions of the organizations and strategies make up the content of this section. This section explores potential partners for land protection, Rockport's capacity for land protection, and potential approaches to land protection. This information will set the stage for Section VIII, recommended action to undertake protection of land in the Town's water supply watersheds.

Non-Profit and Public Partners in Protection

Much has been written on the various types of land protection that can be effectively used, and specifically available in Eastern Massachusetts. The Essex County area is fortunate to have two large land trusts, Essex County Greenbelt Association and the Trustees of Reservations.

The Trustees of Reservations (TTOR) are primarily interested in signature properties of regional or statewide significance, so watershed protection is not one of their primary goals. A few properties within these watersheds, however, might be of interest. These parcels include those surrounding Johnson's Quarry according to Peg Wheeler, Land Protection Specialist, of the Trustees of Reservations. It is not expected that the TTOR will be a significant player in the protection of water supply watershed lands.

Essex County Greenbelt Association (ECGA) seeks donations of Conservation Restrictions on land of conservation value. ECGA will assist property owners with the execution of Conservation Restrictions and donations, hold title to the Conservation Restriction or donation, and manage the land. ECGA already owns several parcels of land within these watersheds. ECGA pursues donations of land primarily through contacts with local organizations interested in land protection that contact ECGA, or through direct contact from property owners seeking conservation protection on their lands. For land protection in Rockport, ECGA has the priority goals of protection of scenic, agricultural, and wildlife habitat lands. Currently, in total ECGA owns in fee 35.2 acres in Rockport, and holds the Conservation Restriction on 15.6 acres.

The U.S. Fish and Wildlife Service owns and manages a portion of Thacher Island as a National Wildlife Refuge. The Service has not expressed any interest in other parcels in Rockport, and would only be interested in parcels for their high value as a Refuge. Little of the land in water supply watersheds in Rockport would likely meet these criteria.

Methods of Protection

The two major land trust organizations serving Rockport have joined together to maintain an updated booklet on methods of land protection. The booklet is titled "Land Conservation Options – A Guide for Massachusetts Landowners" and is currently in its 5th printing. A recent addendum to the most recent version has just been provided on the organizational websites, covering changes to the Massachusetts Estate Tax law, Federal tax law, and M.G.L. Chapters 61, 61A, and 61B. This booklet is probably the most concise and relevant source of information on land protection options in Rockport. The options for land protection are briefly summarized below, but the handbook should be referenced for any protection effort if needed.

This report has already defined the terms for "ownership in fee" and "conservation restriction". These should now be defined for clarity. According to **Land Conservation Options**, the following definitions, quoted directly from this document, apply:

Conservation Restriction (or conservation easement): A legal agreement between a landowner and a third party such as a conservation organization, state agency or other party that permanently or for a stated period limits specified uses and development of the property to protect its natural and scenic features. The document typically conveys to the conservation organization the right to monitor the property and enforce the terms of the agreement.

The provisions of conservation restrictions will vary from situation to situation, depending upon the desires and goals of the grantor and grantee. Usually the restriction forever prohibits development of the land on which a conservation restriction has been granted or placed. However, some uses of the property, such as farming or timber harvesting, are frequently permitted where they are consistent with the objectives of the parties. The conservation restriction should make clear which uses of the property are permitted and which are prohibited. It is recorded like a deed and is binding upon future owners of the property.

For the purposes of watershed protection in Rockport, some of the elements of this generic description require more detail. The definition indicates a "conservation organization" would hold the conservation restriction (CR). In this case, the CR may be held by the Town of Rockport, either through care and custody of the Conservation Commission or of the Department of Public Works, as noted earlier. The uses of the property for watershed protection may limit the harvesting of resources as noted above, depending on proximity to the water supply or other features that could make water quality vulnerable to harvesting practices. Models exist for CR's for watershed protection, and one is included in Appendix F of this document.

Fee Simple: An ownership interest in real estate that is perpetual and without conditions, limitations, or restrictions. To own land "in fee simple" means to have complete ownership of the land, with all the usual rights associated with ownership.

Development and Enhancement of Local Capacity for Land Protection

Rockport has limited capacity at the present time to undertake land acquisition efforts for protection of the water supply or for any other purpose for the following reasons:

- 1. The Town does not have an **Open Space Committee** at the current time, and no current Open Space and Recreation Plan
- 2. The Watershed Protection Committee has a focus on protecting water supplies and watershed land, and has some ability to assist in the preparation of funding applications
- 3. The Town is **not eligible for Self-Help funding** since it does not have an up-to-date Open Space and Recreation Plan
- 4. The Town has significantly reduced capacity to explore and initiate land acquisition and protection without an Open Space Committee. There are a limited number of people available or qualified to write grant applications, either for Self-Help grants or Drinking Water Supply Protection Fund, two sources of state assistance for land protection
- 5. The Town does not have staff assigned to land acquisition activities, and is in need of in-house knowledge of the day-to-day requirements of land acquisition processes. No one is immediately available to prepare the complex applications required to state funding of land protection programs

Land acquisition interest is currently driven by the Conservation Commission for overall conservation purposes, the Watershed Protection Committee for lands to protect the quantity and quality of public water supply, and the Rights of Way Committee for access and some trail issues. According to John Thomasz, Director of the Rockport Department of Public Works, the Department has played little role in land protection for water supply protection in recent years, and not undertaken any land acquisition for water supply protection in recent years.

Other than the two regional land trusts with their own set of criteria for land of interest to them, the Town lacks any non-public organization that could work to protect open space, either in the water supply watersheds, or any other land in town of value for other characteristics

The Conservation Trust, an account under the control of the Conservation Commission, was authorized by M.G.L. Chapter 40, Section 8C. Under this enabling act, the Conservation Trust was established, according to material from the Treasurer/Collector's Office, "to acquire by option, purchase, lease, or otherwise land or water rights...necessary to acquire, maintain, improve, protect, limit future use of or otherwise conserve and properly utilize open spaces in land and water areas within town", but does require a 2/3 vote at Town Meeting. The use of the funds in this Trust also requires a vote of the Board of Selectmen. According to David Santomenna Director of Land Conservation at Essex County Greenbelt Association, few communities in Essex County utilize the tools of the Conservation Trust for land acquisition and protection. Since these trusts are under the primary authority of Conservation Commissions that are overworked in enforcement of the Wetlands Protection Act, it is a challenge to find time to actively manage a Trust or a land acquisition program.

For a number of years, annual Town budgets allocated small amounts of funding to be placed in the Conservation Trust, in the range of \$500 to \$2,500 each year. More recently, the Conservation

Commission has requested funding for the Conservation Trust from the annual Community Preservation funding round. The Conservation Trust has received \$20,000 from Community Preservation in FY2006 funds, and for FY2007 requested \$50,000. The funding available in the account as of August 31, 2007 was \$89,531.

Twenty or more years ago the Town established a **Land Bank Trust Fund** using appropriation of tax revenue at Town Meeting to fund this account. It has been used to acquire land that did not meet the conservation requirements of the Conservation Trust (described below). The last known acquisition was approved in 2000 when White Wharf was purchased. Evidence of the account was first found in a Special Town Meeting vote (Article 10) on November 15, 1986. (See Appendix D) At that time, \$17,901.31 from sale of land was deposited into the Land Bank Trust Fund. As of August 31, 2007, there was \$45,981.34 in the Land Bank Trust Fund account.

Table 3: Funding Set Aside for Land Protection in Rockport*

Fund	Authorization and Control	Funds in Account
Land Bank Trust Fund	Town Meeting-Bd. Of Selectmen	\$45,981.34
Conservation Trust Fund	Chapter 40, Sec. 8C – ConsCom, BOS	\$89,531**
TOTAL		\$135,512.34

^{*}As of August 31, 2007

No applications for state funding for assistance with land protection have been prepared by the Town at least for the last ten years, and likely much longer. The most recent acquisition, Map 23, Parcel 19, that was voted by Town Meeting initially to be acquired for watershed protection and playing fields (STM January 27, 2002). At a later vote at Annual Town Meeting in April of 2002, the purpose was changed to watershed protection and passive recreation. This acquisition was undertaken with \$100,000 of Community Preservation funds and \$25,000 from the Conservation Trust fund. The acquisition process was undertaken by the Town Administrator and the Board of Selectmen.

The Town of Rockport has no local land trust. According to David Santomenna, Land Protection Specialist of Essex County Greenbelt Association, this is not unusual for communities in the Essex County area, where local land trusts can be found only in Boxford, Manchester/Essex, and Hamilton/Wenham. These land trusts are private, non-profit organizations that are membership based; that fundraise for land protection; that buy, own, maintain, and manage open land parcels; and that partner with municipal government and regional land trusts to achieve their goals.

Local land trusts have been initiated for a variety of reasons, and hold an important niche in some areas for land protection. In some cases, private fund-raising initiated the local land trust as a place to hold these funds. In other cases, some private land owners are unwilling to donate land or land protection funds to municipal government. In other cases, municipal government is not interested in either acquiring open space parcels, in managing open space parcels for passive use or land protection purposes, or taking privately-held lands off the tax roles. In these cases, private land trusts can step in to fill this gap.

^{**} An additional \$50,000 was allocated to this fund from CP funds at Special Town Meeting, September 2007

Lacking a locally-based land trust, the Town of Rockport is dependent on municipal acquisition of land, or participation from one of the regional land trusts. Both regional land trusts (ECGA and TTOR) may assist communities in their own acquisition of fee interest or a conservation restriction in open parcels of conservation value. Their primary role in municipal acquisitions is technical assistance or the holding of a conservation restriction on publicly-owned land.

Some municipal governments will assign the land protection/acquisition responsibilities to the Planning Department, DPW, or Conservation Commission, or a combination of the three. In order to be effective, a municipality needs to have a designated department or staff, and identified procedure for land acquisition if any effective effort is going to be mounted to protect classes of land or areas of town. Lacking this designation and identified process, Rockport is unable to mount anything but sporadic efforts to protect individual parcels of land as they clearly arise.

History and Options for Undertaking Rockport Protection Efforts

This assessment of parcels appropriate for water supply and watershed protection was initiated because Rockport's water supply is limited, the landscape is relatively unique in influencing how land disturbance may affect water quality, and there are no current initiatives underway to protect vulnerable watershed land. Land protection efforts have occurred, but in a sporadic way.

With the acceptance of the Community Preservation Act in 2002, Rockport for the first time had significant resources for land protection that could be planned and managed for acquisition or protection of open space parcels. Rockport's Water Department is set up as an enterprise account. Water rates have not been set to allow collection of revenue from users adequate to cover acquisition of key parcels of watershed land. Rates could be set at adequate levels to undertake acquisition of key parcels. Previously, funds from Town Meeting appropriations, donations, and other ad-hoc approaches have been the only funds available.

Since its inception, the Community Preservation Act funds have been used to acquire only the Rowe parcel located in the Sawmill Brook Watershed, totaling 8.2 acres. ECGA participated in this process providing information to the Rowe Parcel Deed Restriction Committee in developing the restriction and the management plan for the site. Essex County Greenbelt is willing to hold and manage the Conservation Restriction on this parcel for the Town. The conservation restriction for this parcel is included in Appendix F.

Discussions have also been held by the Town regarding acquisition of land surrounding Johnson's Quarry. The town undertook efforts in both 1995 and again in 2005 to purchase the Johnson's Quarry and surrounding lands, but negotiations did not result in a price and conditions that worked for the owner and the Board of Selectman who were leading the negotiations for the town. The land being pursued includes a large granite quarry with significant water storage capacity and about 40 acres of adjacent land located at the upper watershed of both the Carlson/Flat Ledge watershed and the Stoney Brook watershed.)

In 2007, two parcels directly abutting Flat Ledge Quarry were proposed for acquisition by the Town using CPA funds. These parcels were briefly reviewed by the Community Preservation Committee based on information provided in the application as well as information collected through the course

of this study. It was determined that the proposal was not adequately developed, but could potentially be funded in a future year.

Rockport can access some significant resources for protection of land to work in partnership with the protection partners identified previously. These funds include those from Community Preservation resources and special Town appropriations at the local level. With the organizing of an Open Space Committee, the preparation of an Open Space and Recreation Plan, and with Community Preservation funds to provide a local match, Rockport could have future access to statelevel funds from the Self-Help Program through which the state funds acquisition of open parcels. Further, with CP funds as a local match, the Town could also access the Drinking water Supply Protection funds described below.

State Partners in Protection

Drinking Water Supply Protection (DWSP) Grant Program

For the last several years, the State has run a grant program, the Drinking Water Supply Protection Program, that assists municipalities to acquire critical lands in permitted or potential Zones II, A, and B of watersheds containing drinking water sources. Except in marginal cases, the program cannot be used to acquire land in Zone I as it has been stated that municipality must acquire the Zone I's themselves. This program seems of quite direct relevance and usefulness to the Town to assist in acquisition of key parcels of land. For the FY2008 grant round, applications received were requesting less than the total amount of funds available. This is a significant opportunity for communities that are ready with an application before the 2009 grant round is due in the fall of 2008.

Their annual program description and application materials (included in Appendix G for the current year) suggests an application to this program for parcels within at least part of the area evaluated for this study might be quite competitive.

The parcels meet many of the DWSF high priority criteria. These include:

- The site is located in a water supply watershed
- The site will be open to the public
- The percentage of the municipality's water supply obtained from the source to be protected
- The quality of the water in that water source
- The percentage of the protected property lying within the watershed
- Distance from the protected land to the water source
- High potential development pressure
- Other land value found on site, such as state-identified habitat
- Readiness of the project to proceed
- Cannot be within the Zone I of a well (must be acquired by the municipality)

Program Details:

- Two appraisals are required to be submitted with the application
- Land must be held as Article 97 land when acquired

- DEP must determine that the land is necessary to protect the water supply, but not necessarily before the application is submitted
- Pre-acquisition costs may not be rolled into the fundable project costs
- A Commonwealth Capital Score must be submitted with the application
- Several landholdings in a contiguous tract may be funded through one application
- Maximum grant size of \$500,000 or 50% of the total acquisition

Program Manager, Christy Edwards, at the Executive Office of Environmental Affairs indicated that she expected applications to be due in mid-September of 2008. The application does not appear too complex, but it would be a large project for a volunteer to undertake. Ms. Edwards indicated that this program has been in existence for several years, and 2006 was the first time the program had received more applications than they had money to fund. It appears that the program is not too competitive yet, and the short run may be an excellent time to apply.

Self Help Program

Rockport is not currently eligible for Self Help funding because it does not have an up-to-date Open Space and Recreation Plan (the preceding draft plan expired in 2002) It might be possible for the Town to become eligible for some funding if a draft of at least some significant part of an updated Open Space and Recreation Plan were to be submitted along with an application. This allowance has been made for communities in the past.

The Self Help program is the flagship state open land acquisition program. It focuses on funding projects in communities that can show greater need for state assistance; where the project quality is high based on the impact of the project on water resources, green infrastructure, multiple uses, biodiversity and resource protection; and consistency with the local Open Space and Recreation Plan and Massachusetts Outdoors 2000!, the state's open space plan. In Rockport, the parcels most competitive for this funding program are likely to be parcels that have or could be made to have views, trails, historic resources, and important natural features. Self Help funds could assist with parcels in the area of Steel Derrick Quarry and Johnson's Quarry and some of the larger parcels in the Saw Mill Brook Watershed that could be available for passive recreation.

Program Details

- The Town must have an up-to-date Open Space and Recreation Plan (OSP)on file with the Office of Conservation Services within the Executive Office of Environmental Affairs
- Two appraisals are required to be submitted with the application
- Land must be held in Article 97
- A Commonwealth Capital Score must be submitted
- The site must be consistent with the program priorities as indicated in the paragraph above
- The applicant community is assigned a "need" score that is then used to determine the level of financial assistance
- Maximum grant size of \$500,000
- Several landholdings in a contiguous tract may be funded through one application

Protecting Parcels Meeting State Funding Priorities

Using the map in Figure 2, and reviewing the criteria for each of the state grant programs summarized above, the following list of parcels has been assembled that reflect parcels that meet many of the criteria for funding.

Drinking Water Supply Protection Grant Program: (M=Assessors' Map Number, P=Parcel Number) M12,P79;M12 P53 C,D,E;M12 P100;M11 P97;M11 P98;M11 P3B;M10 P30;M10 P30D;M 10 P37; M10 P99A,B,C

Self-Help Program: Since Rockport is not currently eligible for these funds, specifying individual eligible parcels are not included in this report. It was noted above that lands in the area of Steel Derrick and Johnson's Quarries would provide many of the key values this program seeks to fund, as would land in the Saw Mill Brook watershed, especially the parcels accessible to passive recreation with public access. This would include lands near the ends of Jerden's Lane and Country Club Road.

VIII. Recommendations for Developing a Coordinated Approach to Watershed Land Protection

In order to be successful in land protection within the water supply watersheds, but also in some of the other areas of town with important land resources, the Town needs to consider the option of establishing a web of coordinated initiatives that can progress toward a goal of a coordinated and planned effort to protect the Town's water supply through acquisition of the necessary land resources to achieve this. These efforts could be implemented within Town Hall with Town staff, with volunteer committees, and/or with private parties with similar interests in land and water resource protection. Isolated efforts to acquire and protect land will result in protection of the odd parcel that may come on the market, but not in a systematic acquisition of land in fee or conservation restrictions that will secure water quality and quantity for the town into the future.

The key elements in undertaking an effective comprehensive land protection program should include, in the rough order of their use or implementation, followed by more detail:

- 1. **Appointment of an Open Space Committee (OSC):** The OSC will produce the Open Space and Recreation Plan and play the role of advocate for land protection for water supply, recreation, public access, and other purposes
- 2. **Preparation of an Open Space and Recreation Plan (OSRP):** This plan will provide basic information on demographic characteristics in town, natural resource features, the need for recreation resources, and goals/objectives/action items for land protection.
- 3. Community Preservation Funding for Land Protection: Additional assessment of the current and projected revenue generated by Community Preservation funds could be assessed and some estimates made of the level of funding that could be sustained for a longer term program for land and water supply protection. Such a program could include acquisition and personnel to implement the program.
- 4. Organization for Land Protection Efforts (local land trust, Conservation Trust, other local fund seeded with CPA funds, raised funds, and use of professional services): With the completion of the OSRP, the breadth of land protection needs will become more clear, and the potential role of local land trusts and municipal government will be more clear. Efforts can then be made to create the necessary capacity to undertake comprehensive land protection in Rockport based on adequate and reliable funding sources supporting professional capacity to undertake land protection efforts and funding for ongoing acquisition.
- 5. Water Department Revenue for Land Protection: Some communities use revenue from the sale of water to acquire land that will protect the local water supply. This could provide another source of funding to be combined with Community Preservation funds and potential state grants
- 6. **Protection of Orphan Parcels Owners Unknown:** There are a number of these parcels in Mill Brook and in Carlson's Quarry watersheds. It can be an expensive process to clear title to these parcels so key parcels should be selected for this effort.
- 7. Transfer Town-owned Parcels into Control of the Conservation Commission or Water Department: There may be important parcels within the watersheds where the municipal ownership is held by a department that is not managing the land to protect water supply and

water quality. Consideration can be given to transferring ownership to the Conservation Commission or to the Water Department to assure that the land is managed to protect the water supply.

1. and 2. Appointment of an Open Space Committee (OSC) and Production of an Open Space and Recreation Plan (OSRP)

As the first step, Rockport would appoint an Open Space Committee to oversee the development of an Open Space and Recreation Plan. This effort is getting underway and appointments are expected in 2008. The organization of the Open Space Committee has been identified by the Board of Selectmen as having representatives of the Planning Board, Board of Selectmen, Conservation Commission, and appointees from different geographical areas of the town. This Committee would be most effective if it had an ongoing active role in implementing the Open Space and Recreation Plan, and in updating the Plan on an every five-year basis. As indicated in the analysis of capacity to acquire land, one key role of the Open Space Committee would be to identify parcels for protection, coordinate with the Conservation Commission and Department of Public Works on acquisition, perform some of the legwork in implementation of the OSRP, land acquisition, and continue to identify important goals and parcels for protection.

At the time of the preparation of this report, some funds (\$5,000-\$10,000) have been allocated from Community Preservation funds to pay for professional services to assist the Open Space Committee with the preparation of the OSRP and to support the mapping and distribution. The development of an OSRP is critical to sharpen the goals of the Town for protection in various sectors of Town, to establish the current status of community character and need for open space and recreation, to document the current levels of protection and their vulnerability, and to identify Goals/Objectives/Action Items that will set a course for the Town in land protection and recreation development into the near term future. This effort is particularly key as it will further facilitate the appropriate and effective use of the resources of the Community Preservation fund.

3. Community Preservation Funding for Land Protection

As noted, and unlike many other Community Preservation communities in the Commonwealth, Rockport has used Community Preservation funds to protect only one parcel. That parcel is important in providing access to open space resources, to preserve grassland habitats, and to protect an emergency water supply source. Rockport has used most of its Community Preservation funding for historic preservation, and work on many of these key historic properties is being completed.

The establishment of a more coordinated effort to protect land for water supply and other purposes could be reasonable at the current time. The funding of this study and of the preparation of an Open Space and Recreation Plan are key efforts in getting such an effort off the ground. A concerted land protection effort could include the development of a land protection program based on the two reports and the funding of part-time staff or a consultant to prepare grant applications, identify and contact property owners who may be interested in selling or donating land, and all the other activities that are required in the process of acquiring land or interest in land. Another option would be to increase the hours of current staff resources using Community Preservation funds specifically

for undertaking such an effort. The existence of a more methodical approach will make the town much more effective in securing state grant funds for local efforts

4. Organization of Land Protection Efforts

The Town of Rockport, in pursuing land protection as a municipal entity, is limited by local resources (Community Preservation funds, potential funds from Water Department revenues, funds in the Conservation Trust and Land Bank, or a special appropriation) and potential grant funds from the state. It is not common that private land or funds would get donated to contribute to such an undertaking. The development of a local or multi-town land trust, based on local membership and fund-raising, could also receive donations of land and money. It has been found in some communities that long-time property owners may sometimes have had a negative experience with a town government, and prefer to leave their land to a land trust. The development of a local or multi-town land trust is one valuable way of providing an important alternative to municipal ownership. In addition, Rockport has many part-time residents who acquired second homes in Town because they love the Town, its charm, and its views. They are an important element of a membership base that also often have significant financial resources to make large donations. Without a land trust that fund raises among such residents, access to these funds would not be possible.

The Manchester-Essex Conservation Trust (MECT) owns outright over 1,000 acres of protected land, 160 acres in conservation restrictions, and oversees 25 miles of foot trails. The Trust notes on their website that their goals are to "enhance the quality of life on Cape Ann by ensuring that lands that are vital to public health remain in their natural condition. These lands protect drinking water supplies...." and a variety of other goals. The organization has a paid, part-time staff and a board. The MECT by-laws are included in Appendix E as an example of such an organization.

A similar entity could be developed in Rockport alone, or perhaps more appropriately in Rockport and Gloucester, to provide more organizational efficiencies. Gloucester, also lacking an Open Space and Recreation Plan and an Open Space Committee despite ongoing efforts, is in a similar situation to Rockport. Gloucester does not, however, have the resources of the Community Preservation Act. It is worth giving further assessment to a unique role that a private entity could play in land protection in Rockport, both for water supply as well as lands of scenic and conservation value. David Santomenna of ECGA indicated that membership and fundraising is simplified if the parcels to be protected are visible and desirable, and will have public access. Bernie McHugh of the MLTC advised that the most important effort in the start-up of such an organization is to move to protect the "right" parcel of land — one that is visible and valuable to a broad spectrum of both year round residents and second-home-owners. Essex County Greenbelt Association does not specifically recruit membership or donations from the part-time, potentially wealthier residents in the area. As a result, the resources of these private donations may be lost to the area.

Increased coordination among existing Rockport Town boards, commissions, and committees is also important in making land protection efforts more effective. Several entities, including the Board of Selectmen, Conservation Commission, and Rights of Way Committee all play some role in land protection. Their coordination on land protection, with wetlands protection or development of recreation trails, are all important in the Town achieving its key goals. The Department of Public Works, with its direct interest in protection of watershed land, is another key player that can

participate in the consideration of parcels to protect, and in discussion appropriate uses of protected parcels.

While Rockport can pursue a variety of options using both municipally-based efforts as well as private efforts, professional capacity and ongoing commitment to the effort are key. Some communities base their land protection program heavily on Community Preservation funds. Sudbury uses town staff (up to 10-20 hours/month) to undertake the ongoing land protection efforts. Sudbury hires Sudbury Valley Trustees for professional assistance when needed, using CP administrative funds to cover these costs. Since Rockport does not have a full-time planning staff, contracting out these services would be necessary. Providing ongoing staff implementation of Rockport's land protection program is reportedly not within the scope of the mission of ECGA, but occasional technical assistance and participation on projects is.

5. Water Department Revenue for Watershed Protection: Most land trust organizations with regional or statewide interest are not directly interested in supporting the acquisition of land for water supply protection alone, but they are seeking significant public access, land of conservation interest, views, and other similar features. These are also the ideal foci for Community Preservation funds. At the same time, the Water Department has come to think almost solely of the Community Preservation funds for their land acquisition needs for lands that may not have any corollary public benefit. With the assessment of key parcels for acquisition, providing information on whether the parcels have broader Community Preservation values or just water supply protection values, the establishment of an account from Water Department revenue that could potentially be used for land protection for parcels with few or no other public benefits can be considered. This is particularly valuable as the Community Preservation funding can be vulnerable to Town Meeting efforts to rescind it.

6. Protection of Orphan Parcels:

There are nine orphan parcels in the several watersheds included in this study. According to Kathleen O'Donnell of Kopelman and Paige, the Town's first effort to gain control of these parcels through a legal process is to undertake historical analysis of the parcel of interest or abutting parcels to make a reasonable effort to identify a current or previous owner. Once an effort has been made in this area, the Town may have two choices. If an owner has been identified, and it can be shown that they are in tax arrears, the Town could initiate tax title process whereby the Town can gain ownership of the land. The Town is familiar with this process.

If an owner cannot be found, the Town has the option of using the eminent domain process to clear title, after authorization by Town Meeting to proceed on this. The Town needs to assemble a record plan, compiled from information on any previous plans or recorded plans on surrounding parcels. The principal issue with this process is that the Town needs to place in escrow adequate funds to cover the value of the parcel should an owner come forward to sue for damages after the parcel has been taken. The amount to be escrowed needs to reflect a reasonable value of the land. After a period of time if no owner comes forward, the amount escrowed is remitted to the state as unclaimed property. While this can clear title to allow public ownership, it may still be costly. The recent court decision in Devine v. Nantucket in the summer of 2007 makes the challenge of using eminent domain on orphan lots even greater.

Kathleen O'Donnell advised that the two parcels identified in the Mill Brook watershed may have been subdivided as part of the subdivision creating Wildon Heights. Initial research on this subdivision shows the abutting parcels to be owned by the Town and the Boston and Maine RR. Within the Carlson's Quarry watershed, the parcel identified as 4A on Figure 2 would be the parcel to focus exploratory work and financial resources on as it incorporates within it northern access to a large undeveloped area within several watersheds and a number of parcels identified as High Priority. Some work on this parcel might be able to clarify that ownership. Parcel A is indicated on several plans as "Owner Unknown". Old plans indicate this area was subdivided in 1722 into a number of woodlot parcels. Based on difficulty of access and costs and procedures required to clear title, this land, while large, probably is not of particularly high value.

Initial research on this parcel and area suggests that the parcel identified as 4B is indicated on plans as being owned by the Town of Rockport for watershed land.

7. Place Critical Watershed Lands that are in Public Ownership in a Legally Protected Status

This study effort has not evaluated the protection status of parcels that are currently in Town ownership. Parcels within the watershed protection areas as identified in Figure 2, should be classified as to their current protection status. Those that are within the watersheds but of principally watershed protection value, could be placed under the control of the Water Department or of the Conservation Commission. This is a straightforward process that can be undertaken at any time.

Sources

Reference Section:

- 1) Open Space and Recreation Plan, Town of Rockport, April 16, 1997, Final Draft. Rockport Open space and Recreation Committee
- 2) Water Supply protection plan (MAPC)
- 3) Mill Brook Well Field Protection plan
- 4) SEA Consultants. Water Supply Operations Plan for Rockport, Massachusetts. 2006.
- 5) Dewberry. Geophysical Surveys and Test Drilling Proposal. December 2003.
- 6) Essex County Greenbelt Association , The Trustees of the Reservations, and The Massachusetts Land Trust Coalition. Land Conservation Options. June 1998.
- 7) www.mect.org Website of the Manchester-Essex Conservation Trust
- 8) Town of Rockport. Water Supply Status Summary 3. Through October 2006.
- 9) Source Water Assessment and Protection (SWAP) Report for Rockport Water Department. Massachusetts Department of Environmental Protection. May 15, 2002.

Interviews:

- 1. David Santomenna, Land Protection Specialist, Essex County Greenbelt Association
- 2. Peg Wheeler, Land Protection Specialist, The Trustees of the Reservations
- 3. Massachusetts Association of Conservation Commissions
- 4. Helen Bethel, Director, Manchester-Essex Conservation Trust
- 5. Kathy Leahy, Massachusetts Audubon Society
- 6. Bernard McHugh, Massachusetts Land Trust Federation
- 7. John Thomasz, Director, Rockport Department of Public Works
- 8. George Robertson, Senior Field Coordinator, Rockport Department of Public Works
- 9. Kathleen O'Donnell, Attorney for Kopelman and Paige
- 10. Tim Good, Gloucester Assessors' Office
- 11. Jody Kablach, Director of Community Development and Planning, Sudbury, MA